What is Claimed is:

1. A single chain antibody comprising having a structure in which a heavy chain and a light chain of the antibody are crosslinked through a linker, or a labeled single chain antibody comprising carrying a labeling substance in a linker part of the single chain antibody.

2. A single chain antibody having a structure in which a heavy chain and a light chain of the antibody are crosslinked through a linker, or a labeled single chain antibody carrying a labeling substance in a linker part of the single chain antibody, wherein the heavy chain and the light chain of the antibody are variable regions.

3. A labeled single chain antibody having a structure in which a heavy chain and a light chain of an antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the labeling substance is a substance that is capable of binding to a polypeptide of the linker part of the antibody in the presence of a specific enzyme.

4. A labeled single chain antibody having a structure in which a heavy chain and a light chain that are variable regions of the antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the labeling substance is a substance that is capable of binding to a polypeptide of the linker part of the antibody in the presence of a specific enzyme.

5. A labeled single chain antibody having a structure in which a heavy chain and a light chain of an antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the labeling substance is incorporated as one part of the linker part of the antibody.

6. A labeled single chain antibody having a structure in which a heavy chain and a light chain that are variable regions of the antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the labeling substance is incorporated as one part of the linker part of the antibody.

7. A labeled single chain antibody having a structure in which a heavy chain and a light chain of the antibody are crosslinked through a linker, and carrying in the linker part a labeling substance that is capable of binding to a polypeptide of the linker part of the antibody in the presence of a specific enzyme, wherein the labeling substance is biotin and the enzyme is a biotin ligase.

8. A labeled single chain antibody having a structure in which a heavy chain and a light chain that are variable regions of the antibody are crosslinked through a linker, and carrying in the linker part a labeling substance that is capable of binding to a polypeptide of the linker part of the antibody in the presence of a specific enzyme, wherein the labeling substance is biotin and the enzyme is

a biotin ligase.

9. The single chain antibody or labeled single chain antibody according to any one of claim 1 to 8, which has a Kd value that is equivalent to a Kd value of a naturally occurring antibody and which is produced by a cell-free protein translation system using wheat embryo.

10. A DNA, wherein DNAs encoding a heavy chain and a light chain of an antibody having binding ability against a specific antigen are linked through a DNA encoding a linker.

11. A DNA in which DNAs encoding a heavy chain and a light chain of an antibody having binding ability against a specific antigen are linked through a DNA encoding a linker, wherein the heavy chain and the light chain of the antibody are variable regions.

12. A DNA in which DNAs encoding a heavy chain and a light chain of an antibody having binding ability against a specific antigen are linked through a DNA encoding a linker, wherein the DNA encoding a linker comprises a nucleotide sequence that is capable of binding with a labeling substance in the presence of a specific enzyme after translation.

13. A DNA in which DNAs encoding a heavy chain and a light chain that are variable regions of an antibody having binding ability against a specific antigen are linked through a DNA encoding a linker, wherein the DNA encoding a linker comprises a nucleotide sequence that is capable

of binding with a labeling substance in the presence of a specific enzyme after translation.

14. A DNA in which DNAs encoding a heavy chain and a light chain of an antibody having binding ability against a specific antigen are linked through a DNA encoding a linker that comprises a nucleotide sequence that is capable of binding with a labeling substance in the presence of a specific enzyme after translation, wherein the nucleotide sequence that is capable of binding with a labeling substance encodes an amino acid sequence that is recognized by a biotin ligase.

15. A DNA in which DNAs encoding a heavy chain and a light chain that are variable regions of an antibody having binding ability against a specific antigen are linked through a DNA encoding a linker that comprises a nucleotide sequence that is capable of binding with a labeling substance in the presence of a specific enzyme after translation, wherein the nucleotide sequence that is capable of binding with a labeling substance encodes an amino acid sequence which is recognized by a biotin ligase.

16. A method for producing a labeled single chain antibody, wherein the DNA according to any of claim 10 to 15 is subject to transcription and translation using a protein synthesis system in the presence of a labeling substance and a specific enzyme.

17. A method for producing a single chain antibody or a

labeled single chain antibody, wherein the DNA according to claim 10 or 11 is subject to transcription and translation using a protein synthesis system.

18. The method for producing a single chain antibody or labeled single chain antibody according to claim 16 or 17, wherein the protein synthesis system is a wheat embryo-derived cell-free protein translation system, and a concentration of a reducing agent in a translation reaction solution thereof is a concentration whereby a disulfide bond of a single chain antibody to be produced is maintained and cell-free protein synthesis is enabled.

19. The method for producing a single chain antibody or a labeled single chain antibody according to claim 18, wherein the method is conducted in the presence of an enzyme that catalyzes a disulfide bond exchange reaction.

20. A single chain antibody or a labeled single chain antibody which has a Kd value that is equivalent to a Kd value of a naturally occurring antibody and is produced by the method for producing a single chain antibody or a labeled single chain antibody according to claim 19 using a wheat embryo-derived cell-free protein translation system.

21. A method for producing an immobilized single chain antibody, wherein any one of the antibodies described hereunder is brought into contact with a reaction plate compartmentalized into a plurality of regions having on the

surface thereof a substance that binds specifically with a labeling substance of the antibody:

1) a labeled single chain antibody, wherein the antibody has a structure in which a heavy chain and a light chain of the antibody are crosslinked through a linker and the antibody carries a labeling substance in the linker part;

2) a labeled single chain antibody having a structure in which a heavy chain and a light chain of the antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the heavy chain and the light chain of the antibody are variable regions;

3) a labeled single chain antibody having a structure in which a heavy chain and a light chain of the antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the labeling substance is a substance that is capable of binding to a polypeptide of the linker part of the antibody in the presence of a specific enzyme;

4) a labeled single chain antibody having a structure in which a heavy chain and a light chain that are variable regions of the antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the labeling substance is a substance that is capable of binding to a polypeptide of the linker part of the antibody in the presence of a specific enzyme;

5) a labeled single chain antibody having a structure in

which a heavy chain and a light chain of the antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the labeling substance is incorporated as one part of the linker part of the antibody;

6) a labeled single chain antibody having a structure in which a heavy chain and a light chain that are variable regions of the antibody are crosslinked through a linker, and carrying a labeling substance in the linker part, wherein the labeling substance is incorporated as one part of the linker part of the antibody;

7) a labeled single chain antibody having a structure in which a heavy chain and a light chain of the antibody are crosslinked through a linker, and carrying in the linker part a labeling substance that is capable of binding to a polypeptide of the linker part of the antibody in the presence of a specific enzyme, wherein the labeling substance is biotin and the enzyme is a biotin ligase;

8) a labeled single chain antibody having a structure in which a heavy chain and a light chain that are variable regions of the antibody are crosslinked through a linker, and carrying in the linker part a labeling substance that is capable of binding to a polypeptide of the linker part of the antibody in the presence of a specific enzyme, wherein the labeling substance is biotin and the enzyme is a biotin ligase.

22. The method for producing an immobilized single chain antibody of claim 21, wherein two or more kinds of different immobilized single chain antibodies are immobilized on a reaction plate compartmentalized into a plurality of regions.

23. The production method according to claim 21 or 22, wherein a labeling substance is biotin and a substance that binds specifically with the labeling substance is streptavidin.

24. An immobilized single chain antibody prepared by the production method according to any one of claim 21 to 23.

25. A method for analyzing an antigen-antibody reaction, wherein a test substance is brought into contact with the immobilized single chain antibody of claim 24, and binding ability of the test substance against the immobilized single chain antibody is analyzed.

26. A method for analyzing an antigen-antibody reaction, comprising the steps of:

(1) preparing a labeled single chain antibody under conditions in which a disulfide bond of a single chain antibody is retained, comprising the step of the following (i) or (ii):

(i) producing a labeled single chain antibody by subjecting a DNA, in which DNAs encoding a heavy chain and a light chain of an antibody having binding ability with a specific antigen are linked through a DNA encoding a linker

comprising a nucleotide sequence that is capable of binding with a labeling substance in the presence of a specific enzyme after translation, to transcription and translation using a wheat cell-free protein synthesis system in the presence of a specific enzyme; or

(ii) producing a labeled single chain antibody by subjecting a DNA, in which DNAs encoding a heavy chain and a light chain that are variable regions of an antibody having binding ability with a specific antigen are linked through a DNA encoding a linker comprising a nucleotide sequence that is capable of binding with a labeling substance in the presence of a specific enzyme after translation, to transcription and translation using a wheat cell-free protein synthesis system in the presence of a specific enzyme;

(2) preparing a substance (adapter substance) that binds specifically with a labeling substance of a labeled single chain antibody in a case where the labeling substance of the labeled single chain antibody is an immobilizing substance, comprising the steps of:

(i) immobilizing a substance (adapter substance) that binds specifically with a labeling substance of a labeled single chain antibody to a reaction plate compartmentalized into a plurality of regions;

(ii) removing a substance (adapter substance) that binds specifically with a labeling substance of a labeled single

chain antibody that was not immobilized to the reaction plate in the preceding (i); and

(iii) before and after the step of the preceding (i) or (ii), removing nonspecific adsorption from the reaction plate as appropriate;

(3) preparing an immobilized labeled single chain antibody in a case where a labeling substance of the labeled single chain antibody is an immobilizing substance, comprising the steps of:

(i) adding a required amount of the labeling substance of the labeled single chain antibody prepared in (i) or (ii) of the above (1) onto a reaction plate compartmentalized into a plurality of regions having a substance (adapter substance) of (2) that binds specifically with the labeling substance of the labeled single chain antibody on the surface thereof, whereby to contact;

(ii) removing a labeled single chain antibody that was not immobilized to the substance (adapter substance) that binds specifically to the labeled single chain antibody on the reaction plate in the preceding (i); and

(iii) following the preceding step (ii), removing nonspecific adsorption from the reaction plate as appropriate;

(4) preparing a labeled single chain antibody in a case where a labeling substance is a signal substance, comprising the steps of:

(i) removing nonspecific adsorption from a reaction plate compartmentalized into a plurality of regions as appropriate; and

(ii) adding a required amount of the labeling substance of the labeled single chain antibody prepared in (i) or (ii) of the above (1) onto the reaction plate;

(5) adding a required amount of a test substance onto each reaction plate according to the above (3) or (4), and analyzing the binding ability of a labeled single chain antibody with the test substance; and

(6) based on the binding ability result obtained in the above (5), qualitatively or quantitatively determining the interaction between the labeled single chain antibody and the test substance.

27. A reagent kit for measuring an antigen-antibody reaction, comprising a reagent to be used in the analysis method according to claim 25 or 26.